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[H.R. 874, American Super Computing Leadership Act](#)

FLOOR SITUATION

On Tuesday, May 19, 2015, the House will consider [H.R. 874](#), the *American Super Computing Leadership Act*, under a suspension of the rules. H.R. 874 was introduced on February 11, 2015, by Rep. Randy Hultgren (R-IL) and was referred to the Committee on Science, Space, and Technology, which ordered the bill reported by voice vote on March 4, 2015.

SUMMARY

H.R. 874 amends the Department of Energy High-End Computing Revitalization Act of 2004 to require the Secretary of Energy to conduct research programs, engage in specified partnerships, submit additional reports, and develop technologies in an effort to develop an exascale supercomputer system.

BACKGROUND

The Advanced Scientific Computing Research (ASCR) program within the Department of Energy (DOE) develops and hosts some of the world's fastest computing and network capabilities, which enables advanced science and energy modeling, simulation, and research.¹ According to the ASCR's Research Division Director, the program's goal is to develop an exascale supercomputing system by 2023.²

An exascale computing system capable of processing a quintillion calculations per second, which is one-thousand times faster than today's most advanced petascale supercomputers. This processing speed is believed to be tantamount to the processing power of the human brain.³ According to the bill sponsor, supporting funding for supercomputer research is necessary to meet our national security needs and will also have spillover benefits in science, engineering and health care.⁴

¹ <http://science.energy.gov/ascr/about/>

² <http://www.computerworld.com/article/2849250/coming-by-2023-an-exascale-supercomputer-in-the-us.html>

³ <http://science.energy.gov/ascr/about/>

⁴ <http://hultgren.house.gov/newsroom/press-releases/hultgren-introduces-american-super-computing-leadership-act>

On May 1, 2015 the House passed [H.R. 2028](#), the *Energy and Water Development and Related Agencies Appropriations Act, 2016*, which provided for \$537 million for the ASCR. In 2015, the ASCR received an appropriation of \$105 million for activities to develop an exascale supercomputer.

H.R. 874 is similar to [H.R. 2495](#), which passed the House by voice vote on September 8, 2014.⁵ The Senate did not act on the House-passed bill in the 113th Congress.

COST

The Congressional Budget Office (CBO) [estimates](#) enacting the legislation would not result in a significant expansion of DOE's current exascale research and development activities.

STAFF CONTACT

For questions or further information please contact [John Huston](#) with the House Republican Policy Committee by email or at 5-0190.

⁵ See [CR H7260-7261](#)